Conceptual Basis for Vital Signs Monitoring

Introduction

Vital Signs monitoring programs need to be based on a sound understanding of park resources and should embrace the recommendations of scientists who are familiar with those resources and their conditions. To meet this need, Shenandoah National Park participated in planning that the Mid-Atlantic Inventory and Monitoring Network did as the Network developed its monitoring plan. That engagement resulted in endorsement of virtually all of the monitoring program that has been underway at Shenandoah National Park for many decades.

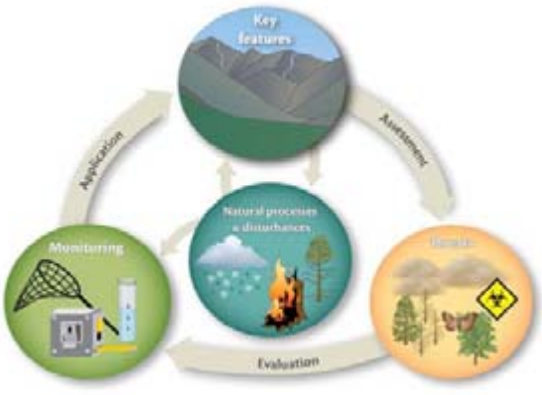
Management Needs

Although endorsement of Shenandoah's Vital Signs is found in Network planning documents, park staff felt that a more robust explanation of the basis for park monitoring was needed.

Furthermore examination of the park's monitoring history reveals that, while staff clearly made informed decisions about what to monitor and what not to monitor, those decisions were never documented.

In an effort to address these two needs, park staff entered into an agreement with scientists with the University of Maryland to prepare a booklet titled "The Conceptual Basis for Vital Signs Monitoring at Shenandoah National Park."

The underlying premise of that document is that an understanding of park resources and processes associated with those resources as well as resource threats provide the basis for Vital Sign selection as illustrated below.



Accomplishments

Work on the Conceptual Basis document began in the late winter of 2009 and should be completed by summer 2010.

This explains the major threats to park resources, relates those threats to resource conditions, and explains those relationships through a series of ecological diagrams or models. That information is then linked to decisions about which Vital Signs are and will be monitored.Although the booklet has been written for non-technical audiences, it includes a substantial list of scientific references which back up the booklet's content.

The booklet is heavily illustrated with pictures, maps, graphs, and charts. Of particular note will be a series of diagrams or illustrations which depict normal natural resource conditions as well as impacted conditions. These are all used to reinforce messages that are presented in the booklet text. In addition, it is hoped that these illustrations will be put to multiple other uses related to public education and information. One of those illustrations is shown below.